ASSIGNMENT 2

Textbook Assignment: "Basic Camera Operation," chapter 7, pages 7:1 through 7:46; "Color Separation and Correction," chapter 8, pages 8:1 through 8:36; "Proofing," chapter 10, pages 10:1 through 10:15.

Learning Objective: Identify the characteristics of film emulsions and distinguish between the type of exposures and the procedures for producing line and halftone negatives.

2-1. What procedure is used when the camera operator converts original photographic materials into enlarged or reduced intermediate images to be used in producing printing plates?

1. Offset lithography
2. Reproduction photography
3. Film processing
4. Halftone reproduction

2-2. What term best describes images in which the tonal gradations of a continuous tone original are represented by a pattern of fine marks?

1. Film positive
2. Contact negatives
3. Duotones
4. Halftones

2-3. Images created by reproduction photography are best referred to by which of the following terms?

1. Negatives
2. Positives
3. Both 1 and 2 above
4. None of the above

2-4. Line copy, typed matter, and drawings are reproduced just the same as continuous-tone images.

1. True
2. False

2-5. What is the key to the photographic process?

1. Film
2. Light
3. Temperature
4. Chemicals

2-6. What term is used to best describe light traveling in a straight line in a uniform medium?

1. Beam
2. Ray
3. Point
4. Wave

2-7. What is a shaft of light with nearly parallel rays called?

1. Beam
2. Ray
3. Point
4. Wave

A. Opaque
B. Opalescent
C. Translucent
D. Transparent

Figure 2A.—Object characteristics.

IN ANSWERING QUESTIONS 2-8 THROUGH 2-11, SELECT FROM FIGURE 2A THE LIGHT PASSING CHARACTERISTIC OF THE SUBSTANCE LISTED AS THE QUESTION. CHARACTERISTICS MAY BE USED MORE THAN ONCE OR NOT AT ALL.

2-8. Frosted glass.

1. A
2. B
3. C
4. D

2-9. Wood.

1. A
2. B
3. C
4. D

2-10. Clear glass.

1. A
2. B
3. C
4. D

2-11. Waxed paper.

1. A
2. B
3. C
4. D

2-12. What is the term used to describe a ray of light that is reflected from a smooth surface?

1. Specular
2. Diffused
3. Refracted
4. Incident

2-13. The lights on a copy camera should be set at what angle so the glare level will be the lowest?

1. 30°
2. 45°
3. 60°
4. 75°

2-14. What occurs when a ray of light is bent as it passes at an angle from one medium to another?

1. Concaving
2. Convexing
3. Reflection
4. Refraction

2-15. Which type of lens is manufactured with both sides curving outward and the center being thicker than the edges?

1. Double-concave
2. Double-convex
3. Concave-convex
4. Convex-concave

2-16. What device enables photographers to numerically measure the density of a black and white or color tone area on transparent or opaque materials?

1. Digital scanner
2. Porosimeter
3. Densitometer
4. Spectrophotometer

2-17. Light affects which of the following components of photographic materials?

1. The gelatin
2. The dyes
3. The silver salts
4. The metallic silver

2-18. When you place exposed film in developing solution, what happens to the silver salts?

1. They turn into a semisolid gelatin
2. They turn transparent
3. They turn into black metallic silver
4. They dissolve

2-19. Hypo is used in the fixer for which of the following reasons?

1. To dissolve the silver halides
2. To harden the film emulsion
3. To stop the developing process
4. To reduce the contamination of the fixer

2-20. A graphic arts camera consists of which of the following three planes?

1. Lens plane, focal plane, and film plane
2. Focal plane, copy plane, and lens plane
3. Copy plane, lamp plane, and focal plane
4. Lens plane, exposure plane, and lamp plane

2-21. If a graphic arts camera is out of focus and the copyboard is fixed, you should focus it by moving what component(s)?

1. The film holder
2. The lens board
3. Both 1 and 2 above
4. The lamps

2-22. Assume that a graphic arts camera is set for a same size shot. What would happen to the image if the distance between the lens board and the film holder were decreased?

1. It would be enlarged
2. It would be reduced
3. It would be focused
4. It would be unchanged

2-23. The ground glass serves which of the following purposes?

1. To protect the film from dust
2. To provide a flat surface for the film holder
3. To transfer the image to the film
4. To aid in focusing the camera

2-24. The light tunnel from the lens to the back of the camera is best known by which of the following terms?

1. Accordion
2. Lens barrel
3. Bellows
4. Camera extension

2-25. When either the vertical or horizontal lines of an image are blurred, which of the following lens aberrations could result?

1. Chromatic
2. Distortion
3. Spherical
4. Astigmatism

2-26. What type of lens aberration could result when the light rays passing through the outer edges of a lens focus on a different plane from those passing through the center?

1. Spherical
2. Coma
3. Astigmatism
4. Distortion

2-27. Filters are used with the graphic arts camera to alter colors, separate colors, and change the intensity of light.

1. True
2. False

2-28. The light gray areas of a black-and-white photograph are best known by what term?

1. Shadows
2. Midtones
3. Highlights
4. Details

2-29. What area of a photograph being used to create a halftone reflects the least amount of light?

1. Shadows
2. Midtones
3. Highlights
4. Details

2-30. A halftone screen should be placed in what relationship to the film?

1. Emulsion of the film to the emulsion of the screen
2. Emulsions of the screen and film face the vacuum back
3. Emulsion of the film faces the vacuum back and the emulsion of the screen faces the lens
4. Emulsions of the film and screen face the lens

2-31. When you are making a halftone negative using more than one exposure, what exposure may NOT be necessary if sufficient contrast can be obtained?

1. Middletone
2. Highlight
3. Detail
4. Flash

2-32. In a multiple exposure, the density of the dots in the shadow areas is increased by which of the following exposures?

1. Flash
2. Middletone
3. Highlight
4. Detail

2-33. What area of a halftone negative contains positive dots in the range of 8-10%?

1. The midtone area
2. The shadow area
3. The highlight area
4. The detail area

2-34. What area of a halftone negative can minor changes in exposure and development lead to considerable changes in results of the reproduction?

1. The midtone area
2. The shadow area
3. The highlight area
4. The detail area

2-35. The area of a negative that will print as black solids is what size dot?

1. 90 percent highlight
2. 80 percent highlight
3. 20 percent shadow
4. 10 percent shadow

Learning Objective: Identify the characteristics of light and color and their application in color reproduction.

2-36. The longest lightwaves the human eye can see come from which of the following light colors?

1. Yellow
2. Green
3. Red
4. Violet

2-37. When all light wavelengths of the visible spectrum are present in equal proportions, what color is produced?

1. Black
2. White
3. Brown
4. Gray

2-38. What are the primary colors of the additive color reproduction process?

1. Yellow, red, and black
2. Red, green, and blue
3. Green, blue, and yellow
4. Black, green, and blue

2-39. What are the primary colors of the subtractive process?

1. Yellow, process red, and process green
2. Black, magenta, and process blue
3. Cyan, magenta, and yellow
4. Process red, yellow, and magenta

2-40. When mixing offset ink, you should use what color combination to produce green?

1. Yellow and cyan
2. Magenta and yellow
3. Cyan and magenta
4. Red and blue

2-41. What term refers to the name of a color?

1. Hue
2. Value
3. Chroma
4. Saturation

2-42. What term refers to how strong something is colored?

1. Density
2. Value
3. Brightness
4. Saturation

2-43. What term refers to the intensity of light reflected from or transmitted by a colored object?

1. Hue
2. Chroma
3. Brightness
4. Saturation

Learning Objective: Recall the procedures for color evaluation and adjusting using the color reproduction requirements.

2-44. What is the order that the color reproduction requirements should be addressed to achieve the best reproduction results?

1. Tone reproduction, gray balance, and color correction
2. Color correction, gray balance, and tone reproduction
3. Color correction, tone reproduction, and gray balance
4. Gray balance, tone reproduction, and color correction

2-45. What color of ideal quality ink printed on paper would allow all of the green and blue light wavelengths to reflect back to the eye, but none of the red wavelengths?

1. Black
2. Cyan
3. Yellow
4. Magenta

2-46. What acronym refers to the process of reducing the amount of cyan, magenta, and yellow printed in dark neutral areas, and replacing it with black?

1. UCR
2. RGC
3. CMY
4. CRB

2-47. A shadow area consists of 70% yellow, 80% magenta, 70% cyan, and 90% black. What is the maximum amount of color that should be reduced and replaced with black?

1. 10%
2. 15%
3. 20%
4. 25%

2-48. The procedure of substituting black for gray components throughout a reproduction including color areas is best known by what acronym?

1. RCC
2. GPS
3. RUC
4. GCR

2-49. What process can be used to make the details of an original copy scan look sharper?

1. Using noise filter
2. Using dust and scratches filter
3. Using unsharp masking
4. Using undercolor addition

Learning Objective: Recall the purpose and principles of proofing operations.

2-50. What is the main purpose(s) of proofing a print job?

1. Checking for accuracy
2. Checking appearance of job before final run
3. Both 1 and 2 above
4. To get the customers go ahead for the job

2-51. The printing of each sheet in the same position relative to the lead edge and the side guides is best referred to by what term?

1. Fit
2. Imposition
3. Register
4. Alignment

2-52. How many components establish the visual perception of a person?

1. One
2. Two
3. Three
4. Four

2-53. The graphic arts industry has set the standard lighting temperature at what rating for accurately viewing and evaluation of color printing?

1. 3,500 Kelvin
2. 4,000 Kelvin
3. 4,500 Kelvin
4. 5,000 Kelvin